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IMPROVING EDUCATIONAL OPPORTUNITIES FOR MEXICAN-AMERICAN HANDICAPPED CHILDREN.

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DATA AVAILABLE FROM 3 STATES WITH LARGE MEXICAN AMERICAN POPULATIONS INDICATE THAT REFERRAL TO AND ENROLLMENT IN SPECIAL EDUCATION CLASSES OCCURS AT A PERCENTAGE TWICE THAT OF THE PROPORTION OF MEXICAN AMERICANS TO THE GENERAL POPULATION. REASONS FOR SUCH ENROLLMENT ARE ATTRIBUTED TO--(1) MEDICAL AND ENVIRONMENTAL CONDITIONS, (2) ECONOMIC DISADVANTAGEMENT, AND (3) CULTURAL DISADVANTAGEMENT. COMPOUNDING THE PROBLEM IS THE FACT THAT MANY MEXICAN AMERICAN CHILDREN ENTER SCHOOL UNDERSTANDING NEITHER THE ENGLISH LANGUAGE NOR THE CULTURE OF THE SCHOOLS. CURRENT INTELLIGENCE TESTS CANNOT ADEQUATELY JUDGE THE ABILITIES OF SUCH CHILDREN, AND CONSEQUENTLY THEY ARE PLACED IN THE HANDICAPPED CLASSES. BILINGUAL AND CROSS CULTURAL TRAINING HAVE BEEN INITIATED IN SOME STATES AND APPEAR TO HAVE MET WITH SUCCESS. THE BUREAU OF EDUCATION FOR THE HANDICAPPED HAS PROVIDED FEDERAL AID FOR THE DEVELOPMENT OF SEVERAL PROGRAMS WHICH ARE BRIEFLY DESCRIBED IN THIS PUBLICATION, IN ADDITION TO 10 SUGGESTIONS FOR FUTURE EFFORTS IN TEACHER EDUCATION, CURRICULUM, AND INSTRUCTIONAL IMPROVEMENT. (JS)

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BUREAU OF EDUCATION FOR THE HANDICAPPED

U. S. Office of Education

IMPROVING EDUCATIONAL OPPORTUNITIES
FOR
MEXICAN-AMERICAN HANDICAPPED CHILDREN

by

Jane Case Williams

Program Planning and Evaluation

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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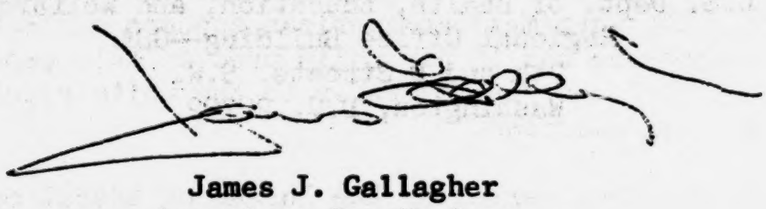
The improvement of educational opportunities for the Mexican-American handicapped child is of special concern to the Bureau of Education for the Handicapped. It is my pleasure to transmit this survey of some of the problems, theory and data related to the Mexican-American handicapped child, which includes a discussion of present and potential contributions which could be made through programs administered by the Bureau of Education for the Handicapped. The purpose of this paper is to stimulate thinking among educators and others concerned with the Mexican-American child. This effort is perceived by the Bureau of Education for the Handicapped as an initial step in approaching the problems of handicapped children within special population groups.



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INTRODUCTION

There are five States in which the Mexican-American*, Latin American or Spanish surname* population of the United States is concentrated: California, Arizona, New Mexico, Texas, and Colorado.

STATE	SPANISH SURNAME population	TOTAL population	%
Arizona	194,356	1,302,161	14.9
California	1,426,534	15,717,204	9.0
Colorado	157,173	1,753,947	8.9
New Mexico	269,122	951,023	28.2
Texas	1,417,811	9,579,677	14.8

(1960 Census)

The Bureau of Education for the Handicapped** does not maintain records on the racial or ethnic background of the population it serves, however, it must be presumed that Mexican-American handicapped children are being served under BEH programs at least to

*Terms used interchangeably; however, Bureau of Census defines Spanish surname population as white persons with Spanish surname, and thereby excludes population who have intermarried with other races and surnames. The term Mexican-American appears currently to have the widest acceptance and is generally used in this paper. The terms "other white" and "Anglo" refer to the white population, exclusive of Mexican-American.

**Handicapped children served by the Bureau of Education for the Handicapped include those who are mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, crippled, or otherwise health impaired and who by reason thereof require special education and related services.

the extent that they occur in the general population served by such programs. In fact, data available from three of the five states with large Mexican-American populations suggest that referral and enrollment as "handicapped" in classes of special education occurs among Mexican-Americans at a percentage twice that of the proportion of Mexican-Americans to the general population.

It is generally agreed that there is no genetic reason why the rate of incidence of mental retardation or of other handicapping conditions among the Mexican-American population should be any greater than among the population as a whole, and other factors must be examined as potentially causative. It does appear that (1) prevalence of handicapping is greater among the "disadvantaged" for a variety of medical and environmental reasons, and that (2) many handicaps are, in fact, preventable and remedial concomitants of the poverty, neglect, language difference, lack of health care, nutritional deficit, and lack of social and educational support often characteristic of the environment of disadvantaged populations, and that (3) large numbers of Mexican-Americans can be found among the economically and environmentally disadvantaged population.

The U.S. Office of Education demonstrated its interest in the educational needs of the Nation's Mexican-American population when it held a conference on "The Educational Problem of the Mexican-American" in August 1966. The report from this conference said in summary, "The educational problem is a complicated one in which

the bilingual and bicultural conflict is a central problem." (Goff 1966) Commitment to the educational needs of the Mexican-Americans was reaffirmed in 1967 with the establishment within the Office of Education of the Mexican-American Affairs Unit. This unit has the responsibility to stimulate and develop programs within the Office of Education to meet the educational needs of Mexican-Americans.

This paper discusses some of the special educational needs of Mexican-American children who may erroneously have been regarded as handicapped. Other Mexican-American children with physical or mental handicaps will continue to benefit from established programs of the Bureau of Education for the Handicapped.

THE PROBLEM

The Mexican-American child may enter school under the dual handicap of understanding neither the language nor the culture of the institution upon which his education, and, in great part, his chances for life success depend. He will usually not achieve well as shown by the following statistics. In the State of Texas (1960 Census) of the Spanish surname population 25 years of age and over:

22.9% received no education

56.8% completed grades 1-8

16.1% completed high school

4.2% completed college

Statistics from other states with high concentrations of Spanish surnames indicate correspondingly low educational achievement among this group. (Table 3, 1960 Census, Persons of Spanish Surname)

Data gathered in a study of educational achievement and ethnic minority groups in Texas (Meisgeier 1966) indicate that the Mexican-American population of the State is significantly under-educated in relation not only to the Anglo group but to the Negro group as well. The median years of school completed by persons 25 years of age and over (1960 Census) was 6.1 and there is greater likelihood for Mexican-Americans to drop out of school before age 19, than for Negroes or Anglos.

In studying literacy in the State, the Texas Education Agency pointed out that although the rate of illiteracy is high among all Mexican-Americans (more than 20% in the counties in the southwest portion of the State which have the highest concentration of Mexican-American population) it is particularly high among children of Mexican born parents. These figures may conceal mental retardation, and may also permit illiteracy to be labelled as "mental retardation." The two problems need to be separated, since one may be corrected and the other ameliorated, but better evaluation techniques must be developed to do this.

In the Texas studies, it was found that the percent of total county

enrollment in special education classes by ethnic group classification was almost double for Mexican-Americans. This finding is reflected also in data from California, where of the total State enrollment in kindergarten, elementary, and secondary schools, 75.14% is "other white" and 13.59% is Spanish surname. However, in special education enrollment, 50.06% is "other white" and 26.6% is Spanish surname. Also in California, in the low-income, low-achievement schools designated for special aid (under California Senate Bill 28) the percentage of Spanish surname pupil is 2½ times that in all other elementary schools (31.15% compared with 12.82%). Of the total number of Spanish surname elementary pupils in the State, 14.2% are enrolled in these schools. In compensatory education target elementary schools (Title I, ESEA) Spanish surname pupils comprise 21.54% of the enrollment. Forty-eight percent of all Spanish surname elementary pupils in the State attend these target schools. (Racial and Ethnic Survey of California Public Schools 1967).

In any discussion of placement of students in low achievement, slow learning and special education classes for the mentally retarded, the question arises of criteria for referral, and intelligence testing. The validity of intelligence tests for assessing academic accomplishment and potential of children from other than middle class English speaking background has been seriously questioned in research findings of recent years, and it has been demonstrated

that programs of intervention and remediation with children from deprived environments and from other than English speaking families can raise "IQ's" substantially. The literature provides abundant material supporting the close relationship of poverty, concentration of ethnic minority groups, social isolation and cultural deprivation.* A discussion of these points and review of relevant literature will be found in Appendix A, from which Meisgeier draws the implication that:

> "Too often, cultural and language factors present a handicap to the learning of Latin-American children in school classes as they are now constituted. School, therefore, becomes a place of failure, and it is quite possible that special education may epitomize this failure to many Latin-American children and their parents. Another obvious implication is the possibility that many Latin-American children placed in special education may not have inherent limitations in their learning ability, but rather may be suffering from the handicap of inappropriate instruction." (Meisgeier 1966)

Although much of the assumed retardation among a culturally

*Cultural deprivation in the present context is not to be confused with cultural difference.

different and economically disadvantaged population can be shown to be invalid, there is a demonstrable cause and effect relationship between prolonged environmental deprivation and intellectual deficiency, some of which is remediable with environmental stimulation. Appendix B contains a review of research from which Meisgeier concludes:

> ". . . . severe deprivation, if not prevented, can cause mental retardation. Data cited above has certainly indicated that many Latin-American and Negro children in Texas can be characterized as culturally disadvantaged or deprived, and thus subject to this complexity of factors resulting in a severe deprivation of intellectual stimulation. One might safely conjecture, then, that there are many cases of deprivation-caused mental retardation among these children, and the statistical preponderance of their enrollment in special education classes is confirmation of such a conclusion."

Thus it would appear that the Mexican-American child,frequently handicapped because he is from a different or disadvantaged background, enters an education system of a culture alien to him and his family and one which begins to shape him to the Anglo standard—a mold which he must fit or fail.

Generally, the teacher under whom the Mexican-American child will

study can be expected to further direct him toward the Anglo standard. There are two reasons for this. The first reason is the limited number of Mexican-Americans in the teaching profession. For California at least, there is little likelihood that a Spanish surname student will be taught by a teacher of his own ethnic group in most schools of the State. A survey of California's eight largest school districts shows that Spanish surnames and Negroes comprise one-third of the total K-12 enrollment; but of 48,277 teachers, 1,091 are of Spanish surname and 4,813 are Negro. Two-thirds of the schools in these districts have no Spanish surname teachers, and one-fifth have only one. The evidence cited indicates that teachers who are members of minority groups are usually concentrated in a small number of schools in each district, which are also the schools with the heavier concentrations of minority group students. (Racial and Ethnic Survey, 1967). The second reason is that it has been found that Mexican-American teachers, either because of legal or school requirements or for personal reasons, tend not to communicate with the children in their own idiom (Goff, 1966) and it is mainly in specially funded programs or projects to assist Mexican-Americans, such as exemplary demonstration projects funded under Title III, ESEA, and other Office of Education and Office of Economic Opportunity programs for target populations that emphasis has been placed on bilingual interaction between teacher and student.

PROGRAMS AND SOLUTIONS

The culture-related problems of the Mexican-American and the relationship of these problems to success or failure in the mainstream of American life received national recognition in 1967 when Congressional Hearings focused on these problems which culminated in the passage of the Bilingual Education Act (P.L. 90-247, 1967 Amendments to the Elementary and Secondary Education Act).

The Bilingual Education Act:

Congress developed the Bilingual Education Act upon the premise that ethnic groups in the United States for whom English is not the dominant language are generally isolated economically and culturally from the rest of the population, and that the array of related problems can best be overcome by an education program to meet the special needs of these groups. Such bicultural-bilingual programs would focus on developing the child's facility in his native language, using it as the medium through which he learns English, and developing awareness of the appreciation for the culture of which he and his family are a part.

Title VII of the Act provides financial assistance to local education agencies to develop and carry out new and imaginative elementary and secondary school programs designed to meet the special

educational needs of children who come from environments where the dominant language is other than English. The Act permits grants to be made for development of such programs in schools having high concentrations of such children from families with incomes under $3,000 per year or receiving Aid to Families with Dependent Children; research, pilot studies, development and dissemination of special instructional materials for bilingual education programs; preservice and inservice training for teachers, aides, and ancillary personnel such as counselors; and establishment and operation of programs involving activities such as—

"1. bilingual education programs;
2. programs designed to impart to students a knowledge of the history and culture associated with their languages;
3. efforts to establish closer cooperation between the school and the home;
4. early childhood educational programs related to the purposes of this title and designed to improve the potential for profitable learning activities by children;
5. adult education programs related to the purposes of this title, particularly for parents of children participating in bilingual programs;
6. programs designed for dropouts or potential dropouts having need of bilingual programs;
7. programs conducted by accredited trade, vocational, or technical schools;
8. other activities which meet the purposes of this title." (P.L. 90-247)

Success in these programs might be expected to significantly reduce the numbers of Mexican-Americans who, for reasons related to cultural adjustment and language difference, are diagnosed as "retarded" and placed in special education classes for the mentally handicapped.

Many observers believe that early stimulation of language development and associated intellectual abilities can prevent cases of environmentally caused mental retardation. For example:

--Project Head Start. Part of the Office of Economic Opportunity's Community Action Program, Head Start is a program of early intervention offering educational, medical, nutritional, social and psychological services to the preschool child and his family, and is an outstanding example of the widespread commitment to this idea.

There are a number of predominantly Mexican-American Head Start programs. In recognition of the special problems of this group program materials have been translated for the benefit of Spanish speaking administrators, staff and parents. Policy requires that in all classes containing significant numbers of children whose native language is other than English, one of the paid classroom staff must be a person able to communicate with the children in their native language.

Head Start is also supporting a variety of research projects which include: evaluation of approaches to teaching Mexican-American children, comparison of achievement on a variety of tests, investigation of the influence of interaction with English-speaking children on Mexican-American children's

language proficiency, and development of test instruments suitable for use with Mexican-Americans. Information from these studies may be available late in 1968.

--A Public School Program. A former director of special education in a city in one of the five States of heavy Mexican-American population, described a public school program there. The schools tested children before and after participation in intensive language development classes, and found their I.Q.'s to be considerably raised following this instruction in English. This program for apparently retarded first grade Mexican-American children stressed language development (in English only) as the total program, and could be compared to one which would be given to pre-school deaf and hard of hearing children. Within a two-year span these children (who had originally tested between 50 and 70 I.Q.) usually came up not more than one year's retardation. The rate of pseudo retardation among the 165 who participated each year (11 classes of 15 children per class) was about 58%. As a result of these findings, the schools began to emphasize language development programs for all children (not limited to Mexican-Americans) with speech therapists and first grade teachers working closely together. (Note: the program began with the child's first year of school which happened to be first grade only.)

—Observations From a Community. The Mexican-American director of a community action agency and himself formerly a specialist in mental retardation with a State educational agency, offered a number of observations on the educational problems of Mexican-Americans. He stated that the bulk of children labeled as mentally retarded in his area are Mexican-American. This is for reasons partly cultural, partly social and educational, but largely because of the inadequacy of tests used and the lack of resources for testing. Although the State education agency requires testing periodically, inadequate personnel and inappropriate tests frequently cause whatever testing is done to be perfunctory. Because of the shortage of qualified evaluators, the tests are frequently administered by relatively untrained testers. The tests themselves (the WISC is used most frequently) are translated, but not validated and are often in a form of Spanish foreign to the child. Furthermore, once tested and labeled, children are seldom taken out of classes for the retarded.

In that area also, infant mortality from dysentery is very high, and the effects of dehydration on the brain of those who survive is a probable cause of much of the retardation observed among those children.

—Follow-Through. Administered by the Office of Education, Follow

Through is a continuation into the formal school programs of the disadvantaged child of many of the special services and educational and cultural enrichment which he experienced in Project Head Start. A series of pilot programs were funded for operation during the school year 1967-68, of which one in Corpus Christi, Texas, is of particular interest. This program, operated by the Public Schools, focuses on a Spanish speaking Mexican-American population. Guidance in developing the research component of the program was provided by the U.S. Office of Education's Southwest Educational Development Laboratory in Austin, which is well known for its work on bilingual education.

The research design involves comparisons between groups of children, some in the Follow-Through program, and comparable except for previous Head Start experience, and some who receive a curriculum emphasizing the newest techniques in teaching English as a second language, and some who participate in a bilingual curriculum emphasizing the reading and writing of the native language (Spanish) prior to English.

Evaluations (cognitive, social, emotional, family relationship and teacher) will be done at the beginning and end of the school year each year of the program for the children. It is expected that data will not be available before summer 1968.

—A Recent Study. A doctoral study at the University of the Pacific (1967 Leppke) evaluated disadvantaged Anglo and Mexican-American kindergarten children (495) with bilingual testers using the Peabody Picture Vocabulary Test in English and Spanish. The wide divergency of vocabulary scores on all groups tested suggested that language difference alone did not appear to be an adequate explanation of low achievement among the Mexican-American children.

PROGRAMS OF THE BUREAU OF EDUCATION FOR THE HANDICAPPED

Programs administered by the Bureau of Education for the Handicapped serve handicapped children in all States, including the five States identified as containing the heaviest concentration of Mexican-Americans — Colorado, Arizona, California, New Mexico, and Texas. Some of the activities of programs administered by the Bureau in these States are described in the following sections.

I. Support to State Schools (P.L. 89-313).

Under this program, funds are made available to the State Education Agency for use in state supported schools for handicapped children and may be used for a wide variety of activities and services within these institutions. The following table shows the allocations by state and the number of children to be served

on whom the allocations were based for Fiscal Year 1968.

	Allocation	Children
Arizona	$222,941	871
Californi	883,294	3,209
Colorado	593,274	2,294
New Mexico	201,412	789
Texas	848,850	3,324

Data available in annual reports* for this program indicate that Mexican-Americans comprise 26% of the enrollment in State schools for the handicapped in Texas, and 48% in New Mexico. Spanish surname population is 14.8% of the total population in Texas and 28.2% in New Mexico. (1960 Census)

II. Preschool, Elementary and Secondary Schools (Title VI,ESEA)

Through this program, grants are made to State Education Agencies to assist in the initiation, expansion and improvement of programs and projects designed to meet special educational and related needs of handicapped children at the preschool, elementary and secondary school levels, with services also provided through this program to handicapped children attending private schools. Local

*(Note: Annual report forms after 1967 no longer require description of participants by racial or ethnic background.)

education agencies apply directly to the State Education Agency for grants under this program.

In 1967, State Education Agencies received planning grants with which they assessed the needs of special education in their States, established priorities for the program, and developed the "State Plan" outlining the future direction for the program in the State. While Mexican-Americans will participate in and benefit from these programs as will all handicapped children within a State, it is likely that additional or special needs of this population will be met through the increased resources in expanded programs and the development of services in new programs. For example, one state plan in discussing the high priority of bringing special education services to other than urban areas, pointed out the severe lack of services in public schools in rural and economically depressed areas of the State; —areas which frequently correspond to concentrations of Mexican-American population—and also the absence of sheltered workshops and other work-experience programs in any but urban areas.

It is expected that for the first year of operation of the Title VI Preschool, Elementary and Secondary schools program (FY 1968), a large portion of the funds will be used for inservice training and summer institutes. Areas of high priority this year for such training include emotionally disturbed, learning disabilities, diagnostic services and increase of leadership at State, regional,

and local levels.

III. Media Services and Captioned Films

Although there has been no activity specifically directed to the Spanish speaking Mexican-American population, this program provides the following services to the handicapped population in the five States which directly and indirectly benefit handicapped Mexican-Americans.

—New Mexico State University is conducting a research project: "Strengthening the Visual Perception of Deaf Children."

—Southwest Regional Media Center for the Deaf in Las Cruces, New Mexico is providing: (1) concentrated training in the utilization of instructional media in institutions involved in training teachers of the deaf, (2) workshops and demonstrations of media techniques for personnel and agencies working with the deaf in out-of-school activities, (3) planning for future activities in curriculum service and instructional systems.

—The Colorado School for the Deaf and Blind serves as the distribution center for captioned feature films for the Western Region—which includes the five-State area with Mexican-American population.

—Educational captioned films are available through the following distribution centers: Arizona: Arizona School for the Deaf at Tucson. California: California School for the Deaf at Riverdale; California School for the Deaf at Berkeley; Los Angeles County Schools; Sacramento County Schools; Tulare County Department of Education at Visalia. Colorado: Colorado School for the Deaf at Colorado Springs. New Mexico: New Mexico School for the Deaf at Santa Fe. Texas: Dallas Pilot Institute for the Deaf at Dallas; Texas School for the Deaf at Austin.

IV. Division of Training Programs

Grants under this program are made to institutions of higher education and to State Education Agencies for the preparation of professional personnel in the education of handicapped children. Awards are made for traineeships at both graduate and undergraduate levels, summer and special study institutes, as well as program development grants to strengthen the special education offerings of a college or university.

The Bureau's Division of Training Programs does not maintain data on ethnic or racial characteristics of its trainees, making it impossible to identify the numbers of participants who may be Mexican-American. However, the following table indicates training awards made available in Fiscal Year 1967 in the five States

having the largest Mexican-American population.

	Colleges & Universities participating	Number of Traineeships				
		Masters	Post Masters	Senior Year	Summer	Special Study Institute
Arizona ($420,792)	3	41	2	27	44	60
California ($1,448,678)	10	188	19	11	76	620
Colorado ($661,883)	5	61	20	20	41	280
New Mexico ($283,160)	3	30	-0-	18	13	-0-
Texas ($1,000,332)	13	68	14	73	184	240

Grand Total: $3,814,845

V. Division of Research

The Division of Research funds a variety of research and demonstration projects related to the improvement of education for the handicapped.

Presently, there is a research study relevant to a Spanish speaking handicapped population. The interim report of "Retardation in Intellectual Development of Puerto Rican Children in New York City" (Dec. 1967) cites as a significant finding that I.Q. did not drop with age, indicating that the retardation in academic

achievement which the subjects showed is not the result of cognitive defects resulting from presumed deficiencies in the preschool home environment (cultural deprivation). Poor schooling techniques geared to the middle-class task-oriented child is suggested as causative. The findings also seriously question the concept that bilingualism as such will result in retardation in language development.

Instructional Media Centers (IMC). These centers provide ready access to valid instructional materials and information related to the education of handicapped children by special educators and allied personnel--are funded through the Division of Research. Of the 14 centers established throughout the country, three (University of Southern California, University of Texas, and Colorado State College) are located in States with large Mexican-American populations with services provided to all five States, and in addition, the Center at the American Printing House for the Blind at Louisville serves all the states.

There is no question that there are many Mexican-American children among the handicapped children served through these centers. At the present time, the Center at the University of Texas is developing specialized materials and curriculum for bilinguals (Spanish-speaking) in response to a survey of the most urgent needs of special education teachers.

---Educational Resources Information Centers:

ERIC-CEC: Another service to handicapped children throughout the country is now being provided with participation of the ERIC Clearinghouse on Exceptional Children as a communications center for the network of Instructional Materials Centers of the Bureau of Education for the Handicapped and as a link to the ERIC (Educational Resources Information Center) network of the Office of Education. The Mexican-American handicapped population will benefit from this center, as will the total handicapped population, from ERIC-CEC's services as an information center and communications center for the IMC network, and from the center's development of special materials interpreting research in terms of educational practice.

ERIC-CRESS: Another Office of Education clearinghouse which directly relates to the Mexican-American is ERIC-CRESS (Clearinghouse on Rural Education and Small Schools). This clearinghouse has developed an extensive annotated bibliography of education and the Mexican-American which includes pre-school, elementary, secondary, and higher education; adult, basic, and vocational; and migrant education.

FUTURE DIRECTIONS

The goal of the Bureau of Education for the Handicapped is to assist in a national effort to provide effective educational programs for the handicapped so that each child will realize his full potential as a participating member of society. Where instruction and other services can be more optimally received through the communication medium of the native language of the child, a bicultural or bilingual approach may prove to be an educationally sound technique.

The programs of the Bureau of Education for the Handicapped administered at the national, state and local levels offer a wide variety of opportunities for expansion of educational services to the handicapped non-English speaking child. The following suggestions are given as "possible approaches" to training of teachers, research on the handicapped, development of instructional materials, and pilot programs, which can be considered by administrators and planners of programs for the handicapped and institutions of higher education, especially those with large numbers of Mexican-American students. (See Appendix C)

1. Teacher Training -- Training programs for teachers of the handicapped specifically to train bilingual-bicultural teachers to work with Mexican-American children. For

example, a special study institute for Mexican-American and Anglo teachers in which problems could be presented on bilingualism and biculturalism and the education of the handicapped.

2. Research -- Further research support to the development of testing instruments and techniques which will better distinguish the "potentially normal" child whose apparent retardation is due to language differences and environmental conditions.

3. Demonstration of Methods -- With or without (2) above, support demonstrations to show that in a class of "labeled" educable mentally retarded children of disadvantaged Mexican-American background, intervention with special teaching methods can result in a significant proportion of reassignments to normal classes.

4. Media -- Through the use of captioned films and other media designed to teach vocabulary and language to deaf children, Spanish speaking children could be more readily introduced to the use of English.

5. Demonstration of Media -- Instructional materials indicated in 4 above have applications for self-instruction and use in

the home. Demonstrations of these uses would help to arouse interest and would extend and improve the educational experiences of children exposed to these kinds of learning tools.

6. Sub-professional Training -- Training programs for recruitment and training of sub-professionals to work in programs for handicapped children, with special focus on training of Mexican-American adults for careers in programs for the handicapped Mexican-American child. Special study institutes would be useful for this purpose.

7. Curriculum Materials -- Through the Instructional Materials Centers, further support the development or translation of materials for use in experimental bilingual-bicultural special education classes.

8. Demonstration of Materials -- Through demonstration programs, demonstrate the validity of the materials developed in (7) above.

9. Development and Demonstration of Curricula for Home Training of the handicapped Mexican-American child. Such materials could be focused at preschool or subsequent levels, and would be prepared with both English and Spanish language orientation. The accompanying training would be extremely beneficial to

parental adjustment and acceptance of the handicapped child.

10. Responsive environment -- In an experimental setting investigate the applicability of responsive environment techniques for a bilingual-bicultural special education class.

Programs for handicapped children must be designed for a wide variety of physical settings in which the educational program will be conducted, and must accommodate a broad variety of individual needs. In addition to developing appropriate educational programming for physically and mentally handicapped children, there must be a sensitivity to the socially and culturally related needs of participating children and families. It is through acknowledgment of these special needs that programs for handicapped children will be most meaningful and effective.

Appendix A

Intelligence testing and the other than Anglo middle class child.

Meisgeier, Charles. The Doubly Disadvantaged, Austin, University of Texas, 1966. pp.62-63.

"There is evidence to suggest that intelligence tests do not represent a true measure of the scholastic experience or ability of these two major ethnic groups (Mexican-American and Negro). The following discussion of this question points out some of the current thinking in this area.

> "Until recently, differences in children's I.Q. were attributed largely to native endowment; very little of the variation was attributed to the effects of environment. The more recent research has demonstrated that for children growing up under adverse circumstances, the I.Q. may be depressed by a significant amount and that intervention at certain points (and especially in the period from ages three to nine) can raise the I.Q. by as much as ten to fifteen points. Such effects have been most clearly demonstrated for children with initial I.Q.'s of less than 110. While there is nothing sacred about the I.Q., it has been a useful indicator of general learning capability in the schools. A change in I.Q. is symptomatic of a change in general learning capability, and this is likely to be verified by more direct measures of school learning. Furthermore, the measurement of the culturally deprived child's intelligence at one point does not determine the upper limits of what he might be able to learn in the schools if more favorable conditions are subsequently provided in the home and/or in the school (Bloom, Davis, Hess; 1965, p.12).

"There is a surfeit of reports in the literature describing the low school achievement of most Latin-American children "proving" that the majority of them are culturally disadvantaged, further handicapped by language and communication problems and alienated toward education (Gonzales, 1932; Hernandez, 1938; Ratliff, 1960). Other investigators have challenged these results, pointing out that all tests of intelligence are inherently biased against any child whose native language is not English and/or any child whose cultural frame of reference is not that of the standard Anglo middle-class (Corwin, 1961; Garth, et.al, 1936; Rice, 1964).

"The conclusion from all this information seems to be that none of the standard measures of intelligence is appropriate for any child, including the Latin-American, who is not fully integrated into Anglo middle-class culture. Jensen compared high I.Q. Anglo and Latin-American children with low I.Q. Anglo and Latin-American children on a created test of learning ability. He found that the Anglos of low I.Q. were slower learners on this new test than the Latin-American children of the high I.Q. group. Jensen flatly states that the majority of Latin-American children demonstrating low I.Q. on the California Test of Mental Maturity are probably actually quite normal in learning ability (Jensen 1961). Sanchez had previously demonstrated this point. He tested a second-grade group of bilingual children and found that the median I.Q. was 72. Working on the assumption that the test reflected a function of the school, remedial instruction in language and language arts was given over a two-year period, with the result that the median I.Q. score was "raised" to approximately 100, or normal. The author commented, "If initial test results had been accepted at face value, a large percentage of the children would have been classified as belonging in special classes for the dull, and some even as belonging in institutuins for the feeble-minded." (Sanchez, 1934).

Appendix B

Environmental deprivation and intelligence.

Meisgeier, Charles, op. cit., pp28-29.

"The effect of cultural deprivation on intellectual functioning has received some attention in the past and is receiving a great deal of attention at present. Studies by Pasamanick, Speers, and many others have shown that excessive lack of mental stimulation can lead to inefficient use of native intelligence, which, protracted through the first nine or ten years of a child's life, can result in relatively permanent deficiency in intellectual performance (Pasamanick, 1946; Speer, 1940). Studies by Clark, Skeels, and Skodak, among others, have shown, however, that intervention at an early age can not only arrest the process of deterioration in intellectual functioning, but can reverse it with a resultant increase in measured performance (Clarke, et. al, 1958; Skeels, 1941-42; Skodak and Skeels, 1949).

"Clarke and Reiman (1958, pp. 144-157) studied the effect of environmental changes on intellectual functioning of mentally retarded persons. Earlier studies by the authors had demonstrated substantial increases in the measured intelligence of retarded persons removed from extremely impoverished environments. Their study indicated that retarded persons from extremely impoverished environments had positive gains in intelligence test scores when they were removed to a richer environment. Retardates from the most impoverished environments made the greatest gains in test scores as a result of the change.

"Kephart's (1940, pp.223-230) study of the effects of environmental stimulation on the rate of mental growth in retarded children indicated that 16 boys who participated in a special training program showed an average gain of 10.1 points in intelligence test scores during the period of their participation in this study. Pasamanick's (1946, pp. 2-44) study of behavioral development of Negro infants showed that the behavioral development of the selected groups of institutionalized white children was influenced by environmental impoverishment. Pasamanick indicated that lack of environmental stimulation contributed to a downward trend beginning at the third year of life for Negro infants.

"Skeels' (1941-1942, pp. 340-350) study of the effects of environmental stimulation of mentally retarded children demonstrated the positive effects upon his study groups when they were removed from impoverished environments. Skeels attributed

the deterioration present to prolonged exposure to impoverished environments. Skodak and Skeels' (1949, pp. 85-125) follow-up study of 100 adopted children indicated that the children removed from their previous environment had a mean I.Q. level 20 points higher than measured intelligence of their true mothers. The study indicated that the intellectual functioning level was compatible with the environment in which the children were placed. Speers (1940, pp. 309-314) studied the mental development of children of retarded parents and found a direct relationship between adverse environmental conditions and deterioration in level of intellectual function.

Appendix C

Institutions of higher education frequently attended by Mexican-Americans. (Unofficially compiled - Inter-Agency Committee on Mexican-American Affairs, Washington, D.C.)

I. Four year institutions:	Total Enrollment	Approximate % Mexican-American
Arizona:		
University of Arizona, Tucson	20,000	4%
Northern Arizona State, Flagstaff	4,000	n.a.
California:		
Los Angeles State College, L.A.	30,000	5%
University of Santa Clara	2,500	n.a.
Colorado:		
Adams State College, Alamosa	2,000	15%
Ft. Lewis, Durango	1,200	n.a.
Southern Colorado State, Pueblo	4,500	n.a.
University of Denver, Denver	7,000	n.a.
New Mexico:		
New Mexico Highlands, E. Las Vegas	2,000	50-60%
New Mexico State, University Park	3,300	35%
University of New Mexico, Albuquerque	20,000	14%
West New Mexico University, Silver City	1,000	n.a.
University of Albuquerque, Albuquerque	2,500	40%
College of Santa Fe, Santa Fe	2,000	50%
Eastern New Mexico University, Portales	5,000	30%
Texas:		
University of Texas at El Paso	9,000	25%
Texas Agricultural & Industrial, Kingsville	5,000	25%
St. Mary's University, San Antonio	4,000	35%
Pan American College, Edinburgh	4,000	40-50%
Our Lady of the Lake, San Antonio	1,000	23%

II. Two Year Institutions:

Arizona:
Phoenix College

California:
Bakersfield College, Bakersfield
Cerritos College, Norwalk

Two Year Institutions, cont'd.

California, cont'd.
- East Los Angeles College, Los Angeles
- Fresno City College, Fresno
- Los Angeles City College, Los Angeles
- Los Angeles Metropolitan College, Los Angeles
- Merced College, Merced
- San Bernardino Valley College, San Bernardino
- San Jose City College, San Jose
- Santa Anna College, Santa Anna

Colorado:
- Trinidad State College, Trinidad

Texas:
- Del Mar College, Corpus Christi
- Laredo Jr. College, Laredo
- S.W. Texas Jr. College, Uvalde
- Texas Southmost College, Brownsville
- San Antonio College, San Antonio
- Victoria College, Victoria

New Mexico:
- None

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